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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/530,119	09/08/2005	Mirjana Bogosanovic	15960US	2650
23676	7590	07/12/2006	EXAMINER	
SHELDON & MAK, INC 225 SOUTH LAKE AVENUE 9TH FLOOR PASADENA, CA 91101			WIMER, MICHAEL C	
			ART UNIT	PAPER NUMBER
			2821	

DATE MAILED: 07/12/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>		<b>Applicant(s)</b>	
	10/530,119		BOGOSANOVIC	
	<b>Examiner</b>		<b>Art Unit</b>	
	Michael C. Wimer		2828	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 April 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)               | Paper No(s)/Mail Date. ____   |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>4/27/05</u>   | 6) <input type="checkbox"/> Other: ____                                     |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-3,5-7 and 9-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gonzalez et al. (4905014).

Regarding Claims 1-3,5-7 and 9-16, Gonzalez et al. show, for example in Fig. 13, a focused beam antenna array and method therefor, comprising a plurality of "element antenna "16' and a feeding network within the substrate designated as an impedance "Z", and modeled as a loaded transmission line (col.10, third paragraph), and microwave sources 16 providing a feeding coefficient for each element antenna, wherein either or both of the relative position of the antennas, the feeding coefficient are selected to cause microwave signals transmitted from the antenna array to focus (Focal Point) on a required focal surface via phase variation within the near field. A skilled artisan would have found it obvious that the position of the elements 16 and 16' provide the desired focusing of the beam as suggested in col. 18, lines 57-62. Regarding Claims 17-23, the antenna array of Gonzalez et al. would have been obvious to the skilled artisan to use in a sensor, for detecting a property of an object, such as moisture content,

Art Unit: 2828

permittivity, etc., when microwaves are employed, as is well established in the art.

3. Claims 4 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gonzalez et al. (4905014) as applied to claims 1-3,5-7 and 9-23 above, and further in view of Profera (5280297).

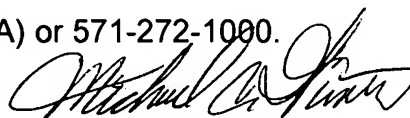
Profera is cited as showing similar system elements for a phased array, where a power divider network is employed, such as shown in Fig. 4, with a phase shifter PS and amplifiers LNA for RX and PA for TX, for providing the same amplitude to each element in the array, particularly for circular polarization and proper phasing to steer the beam toward independent feed points or foci. It would have been obvious to employ such a system in the Gonzalaz et al. arrangement for providing a reflectarray in frequency reuse applications, such as satellite communications.

4. The patent to Lundstrom (3684952) is cited as of interest showing a planar antenna (Fig. 4) used in material permittivity measurement.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael C. Wimer whose telephone number is (571) 272-1833. The examiner can normally be reached on M-F.

Art Unit: 2828

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Michael C. Wimer  
Primary Examiner  
Art Unit 2828

MCW

6/7/2006